

REMARKS

The Examiner has required an election under 35 U.S.C. §§ 121 and 372 of one of the following inventions:

- Group 1: Claims 1-21, 50, 51 and 54 (each in part), drawn to a Nogo protein comprising SEQ ID NO: 2;
- Group 2: Claims 1-21, 52, 53 and 55 (each in part), drawn to a Nogo protein comprising SEQ ID NO: 29
- Group 3: Claims 1-21 (each in part), drawn to a Nogo protein comprising SEQ ID NO: 32
- Group 4: Claims 22-40 (each in part), drawn to a method of producing a Nogo protein comprising an isolated nucleic acid, vectors, and recombinant host cells comprising the same wherein said isolated nucleic acid is SEQ ID NO: 1;
- Group 5: Claims 22-40, 56, 57, 60, 61 and 62 (each in part), drawn to a method of producing a Nogo protein comprising an isolated nucleic acid, vectors, and recombinant host cells comprising the same wherein said isolated nucleic acid encodes SEQ ID NO: 2;
- Group 6: Claims 22-40, 58, 59, 60, 61 and 62 (each in part), drawn to a method of producing a Nogo protein comprising an isolated nucleic acid, vectors, and recombinant host cells comprising the same wherein said isolated nucleic acid encodes SEQ ID NO: 29;
- Group 7: Claims 22-40, (each in part), drawn to a method of producing a Nogo protein comprising an isolated nucleic acid, vectors, and recombinant host cells comprising the same wherein said isolated nucleic acid is SEQ ID NO: 28;
- Group 8: Claims 22-40, (each in part), drawn to a method of producing a Nogo protein comprising an isolated nucleic acid, vectors, and recombinant host cells comprising the same wherein said isolated nucleic acid is SEQ ID NO: 32;
- Group 9: Claims 22-40, (each in part), drawn to a method of producing a Nogo protein comprising an isolated nucleic acid, vectors, and recombinant host cells comprising the same wherein said isolated nucleic acid is SEQ ID NO: 33;
- Group 10: Claims 22-40, (each in part), drawn to a method of producing a Nogo protein comprising an isolated nucleic acid, vectors, and recombinant host cells comprising the same wherein said isolated nucleic acid is SEQ ID NO: 35;

- Group 11: Claims 22-40, (each in part), drawn to a method of producing a Nogo protein comprising an isolated nucleic acid, vectors, and recombinant host cells comprising the same wherein said isolated nucleic acid is SEQ ID NO: 36;
- Group 12: Claims 22-40, (each in part), drawn to a method of producing a Nogo protein comprising an isolated nucleic acid, vectors, and recombinant host cells comprising the same wherein said isolated nucleic acid is SEQ ID NO: 37;
- Group 13: Claims 22-40, (each in part), drawn to a method of producing a Nogo protein comprising an isolated nucleic acid, vectors, and recombinant host cells comprising the same wherein said isolated nucleic acid is SEQ ID NO: 38;
- Group 14: Claims 22-40, (each in part), drawn to a method of producing a Nogo protein comprising an isolated nucleic acid, vectors, and recombinant host cells comprising the same wherein said isolated nucleic acid is SEQ ID NO: 39;
- Group 15: Claims 22-40, (each in part), drawn to a method of producing a Nogo protein comprising an isolated nucleic acid, vectors, and recombinant host cells comprising the same wherein said isolated nucleic acid is SEQ ID NO: 40;
- Group 16: Claims 22-40, (each in part), drawn to a method of producing a Nogo protein comprising an isolated nucleic acid, vectors, and recombinant host cells comprising the same wherein said isolated nucleic acid is SEQ ID NO: 41;
- Group 17: Claims 22-40, (each in part), drawn to a method of producing a Nogo protein comprising an isolated nucleic acid, vectors, and recombinant host cells comprising the same wherein said isolated nucleic acid is SEQ ID NO: 42;
- Group 18: Claims 41-43, drawn to a method of treating a subject with a neoplastic disease of the central nervous system comprising administering to the subject a therapeutically effective amount of a Nogo protein or fragment thereof;
- Group 19: Claim 44, drawn to a method of treating a subject with *damage to the central nervous system* comprising administering to the subject a therapeutically effective amount of a ribozymes or antisense Nogo nucleic acid;
- Group 20: Claim 45, drawn to a method of *inducing regeneration or sprouting of neurons* in a subject comprising administering to the subject a

therapeutically effective amount of a ribozymes or an antisense Nogo nucleic acid;

- Group 21: Claim 46, drawn to a method of *promoting structural plasticity of the central nervous system* of a subject comprising administering to the subject a therapeutically effective amount of a ribozymes or antisense Nogo nucleic acid;
- Group 22: Claims 47-49, drawn to a recombinant non-human animal;
- Group 23: Claims 63, 64, 65, 68, 72-75, 77, 78, 80-85, 87, 91-93 and 95-97 (each in part), drawn to a method of obtaining polyclonal antibodies to a protein, wherein said protein consists of SEQ ID NO: 2;
- Group 24: Claims 63-65, 69, 72-74, 77, 80-85, 88, 91-93 and 96 (each in part), drawn to a method of obtaining polyclonal antibodies to a protein, wherein said protein consists of SEQ ID NO: 29;
- Group 25: Claims 63-65, 70, 72-74, 77, 80-85, 89, 91-93 and 96 (each in part), drawn to a method of obtaining polyclonal antibodies to a protein, wherein said protein consists of SEQ ID NO: 32;
- Group 26: Claims 63-65, 71-74, 77, 80-85, 90-93 and 96 (each in part), drawn to a method of obtaining polyclonal antibodies to a protein, wherein said protein consists of SEQ ID NO: 33;
- Group 27: Claims 64, 66, 72, 76, 82, 86, 91 and 94 (each in part), drawn to a method of obtaining polyclonal antibodies to a protein, wherein said protein consists of SEQ ID NO: 43;
- Group 28: Claims 64, 66, 72, 76, 82, 86, 91 and 94 (each in part), drawn to a method of obtaining polyclonal antibodies to a protein, wherein said protein consists of SEQ ID NO: 44;
- Group 29: Claims 64, 66, 72, 76, 82, 86, 91 and 94 (each in part), drawn to a method of obtaining polyclonal antibodies to a protein, wherein said protein consists of SEQ ID NO: 45;
- Group 30: Claims 64, 66, 72, 76, 82, 86, 91 and 94 (each in part), drawn to a method of obtaining polyclonal antibodies to a protein, wherein said protein consists of SEQ ID NO: 46; and
- Group 31: Claim 79, drawn to an isolated antiserum sample.

The Examiner contends that each of Groups 1-31 lacks unity of invention with each other group.

In order to be fully responsive, Applicants hereby provisionally elect the invention of Group 1 (Claims 1-21, 50, 51 and 54 (each in part)), drawn to a Nogo protein comprising SEQ ID NO: 2, with traverse.

With respect to the alleged lack of unity of invention of each of the 31 groups with each other group, Applicants respectfully traverse and request that the Requirement be withdrawn. Applicants do not traverse on the grounds that the inventions are not distinct and separate; rather, Applicants submit that there is a technical relationship among the different groups that involves at least one common special technical feature.

The standard for determining whether unity of invention exists is based on the determination whether there is a technical relationship among the inventions that involves at least one common or corresponding special technical feature. "When making a lack of unity of invention requirement, the examiner must (1) list the different groups of claims and (2) explain why each group lacks unity with each other group . . . specifically describing the unique special technical feature in each group." *See* M.P.E.P. 1893.03(d).

The Examiner has alleged a lack of unity of invention between claims that are in different categories. In particular, the Examiner has alleged a lack of unity of invention between claims that are directed to Nogo protein (*e.g.*, Group 1), claims that are directed to a method of producing Nogo protein (*e.g.*, Group 5), claims that are directed to methods of treatment comprising administering, *e.g.*, Nogo protein or Nogo nucleic acids (*e.g.*, Groups 18 to 22), and claims that are directed to a method of obtaining polyclonal antibodies to a Nogo protein (*e.g.*, Group 23). However, as illustrated in Example 1 of Examples Concerning Unity of Invention of Annex B Part 2 of the PCT Administrative Instructions, unity of invention exists between claims in these different categories if there is a common special technical feature. The special technical feature common to claims in the different categories is that the Nogo protein is free of all central nervous system myelin material with which it is natively associated. This is achieved by producing Nogo protein recombinantly from nucleic acid sequences that encode Nogo proteins and that are disclosed in the specification. The disclosure of these nucleic acid sequences allows for the first time the obtaining of free Nogo proteins. In contrast, the biochemically purified Nogo proteins of, *e.g.*, Spillmann *et al.*, 1998, are not free of myelin material with which Nogo is natively associated. Further, preparations of Nogo proteins that are free of any myelin material with

which Nogo is natively associated allow, *e.g.*, for the first time the generation of polyclonal antibody sera that are free of any antibodies against the myelin material with which the biochemically purified Nogo proteins of the prior art are natively associated.

Further, another common technical feature among all the claims is the degree of sequence homology among the amino acid sequences of the different Nogo proteins and the high degree of sequence homology among the nucleic acid sequences encoding the different Nogo proteins. Moreover, Nogo A, Nogo B and Nogo C all share in common the sequence of Exon 3 (see Figure 1B).

Accordingly, Applicants respectfully request that the Requirement under 37 U.S.C. § 1.499 be withdrawn and all the present claims be examined in one application.

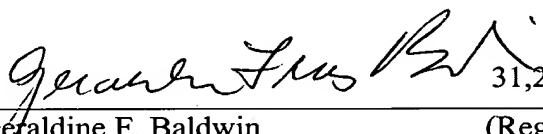
Applicants retain the right to petition from the restriction requirement under 37 C.F.R. §1.144.

CONCLUSION

Applicants respectfully request that the present remarks be made of record in the instant application. An early allowance of the application is earnestly requested. If any issues remain in connection herewith, the Examiner is respectfully invited to telephone the undersigned to discuss the same.

Respectfully submitted,

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